

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
28 March 2002 (28.03.2002)

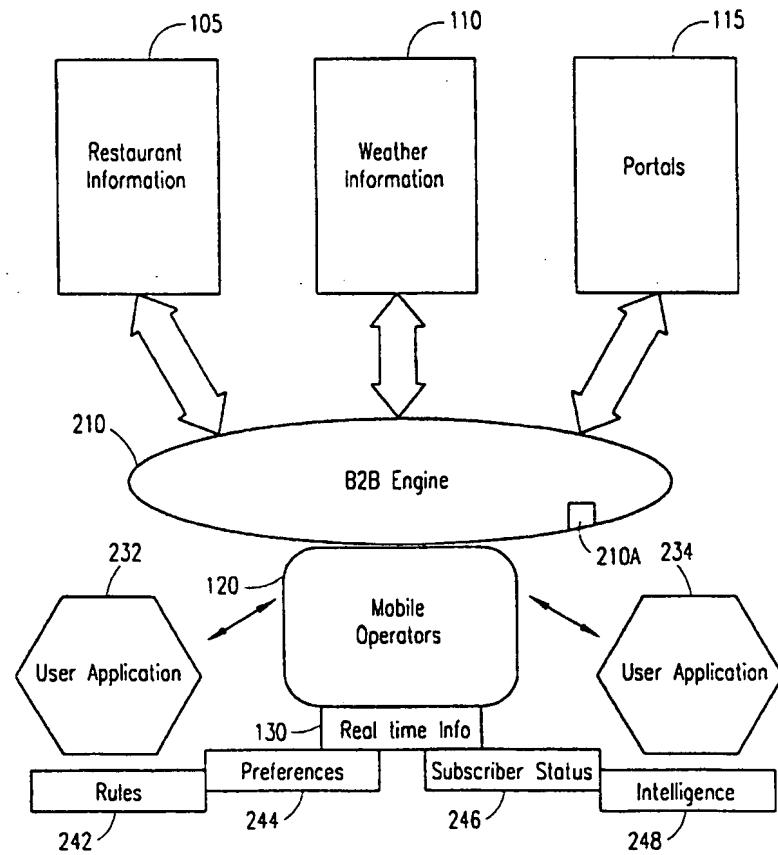
PCT

(10) International Publication Number
WO 02/25893 A3

- (51) International Patent Classification⁷: H04L 29/00. (72) Inventors: BHATIA, Ranjit; 2444 Ravenhurst Drive, Plano, TX 75025 (US). KAVI, Shashi; 5120 Sunningdale Court, Plano, TX 75093 (US). HUSSAIN, Tahir; 3528 Misty Meadow Drive, Dallas, TX 75287 (US). BETRABET, Arvind; 304 Shady Timbers Lane, Murphy, TX 75094 (US).
- (21) International Application Number: PCT/US01/29623
- (22) International Filing Date: 21 September 2001 (21.09.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/235,142 22 September 2000 (22.09.2000) US
09/755,948 5 January 2001 (05.01.2001) US
- (71) Applicant: ERICSSON INC. [US/US]; 6300 Legacy, MS EVW 2-C-2, Plano, TX 75024 (US).
- (74) Agents: HAN, John, C. et al.: Ericsson Inc., 6300 Legacy, MS EVW 2-C-2, Plano, TX 75024 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

[Continued on next page]

(54) Title: A BUSINESS TO BUSINESS ENGINE AND SYSTEM FOR FACILITATING INFORMATION INTEREXCHANGE USING REALTIME DATA



(57) Abstract: A system and method for facilitating information interexchange between a wireless telecommunications system having at least one telecommunications device therein and an information service provider. A Business-to-Business (B2B) engine is connected to the telecommunications system for receiving realtime information related to a telecommunications device within the telecommunications system. This realtime information is provided by the B2B engine to the information service provider, which consequently provides content data to the telecommunications device within the telecommunications system.



(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to the identity of the inventor (Rule 4.17(i)) for all designations*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

27 June 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Int'l Application No

PCT/US 01/29623

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04L29/06 H04Q7/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04Q H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 45732 A (ERICSSON TELEFON AB L M) 10 September 1999 (1999-09-10) page 5, line 13 -page 8, line 6 page 11, line 1 -page 14, line 31 page 16, line 35 -page 19, line 35 figures 1,3-5 ---	1-12, 14-16, 19-23, 25-35
A	WO 00 01172 A (NOKIA NETWORKS OY ;HAUMONT SERGE (FI); KANERVA MIKKO (FI); KARI HA) 6 January 2000 (2000-01-06) page 2, line 7 -page 4, line 10 page 4, line 22 -page 7, line 29 figure 1 ---	1-36 -/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

- *Z* document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
2 May 2002	10/05/2002
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Pacholec, D

INTERNATIONAL SEARCH REPORT

Int'l Application No

PCT/US 01/29623

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 00 04730 A (SIGNALSOFT CORP) 27 January 2000 (2000-01-27) page 2, line 28 -page 5, line 17 page 7, line 22 -page 10, line 16 page 11, line 5 -page 13, line 14 figures 1,3</p> <p>---</p> <p>HELLAKER J ET AL: "Real-time traveller information - in everyone's pocket? - a pilot test using hand-portable GSM terminals"</p> <p>VEHICLE NAVIGATION AND INFORMATION SYSTEMS CONFERENCE, 1993., PROCEEDINGS OF THE IEEE-IEE OTTAWA, ONT., CANADA 12-15 OCT. 1993, NEW YORK, NY, USA, IEEE, 12 October 1993 (1993-10-12), pages 49-52, XP010219744</p> <p>ISBN: 0-7803-1235-X</p> <p>the whole document</p> <p>-----</p>	1-36
A		1-36

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 01/29623

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
WO 9945732	A 10-09-1999	FI AU CA WO EP	980479 A 3029499 A 2321572 A1 9945732 A1 1060632 A1	04-09-1999 20-09-1999 10-09-1999 10-09-1999 20-12-2000
WO 0001172	A 06-01-2000	WO AU EP	0001172 A1 8440998 A 1092327 A1	06-01-2000 17-01-2000 18-04-2001
WO 0004730	A 27-01-2000	AU BR EP WO	5220199 A 9912270 A 1099354 A1 0004730 A1	07-02-2000 05-06-2001 16-05-2001 27-01-2000

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 March 2002 (28.03.2002)

PCT

(10) International Publication Number
WO 02/025893 A3

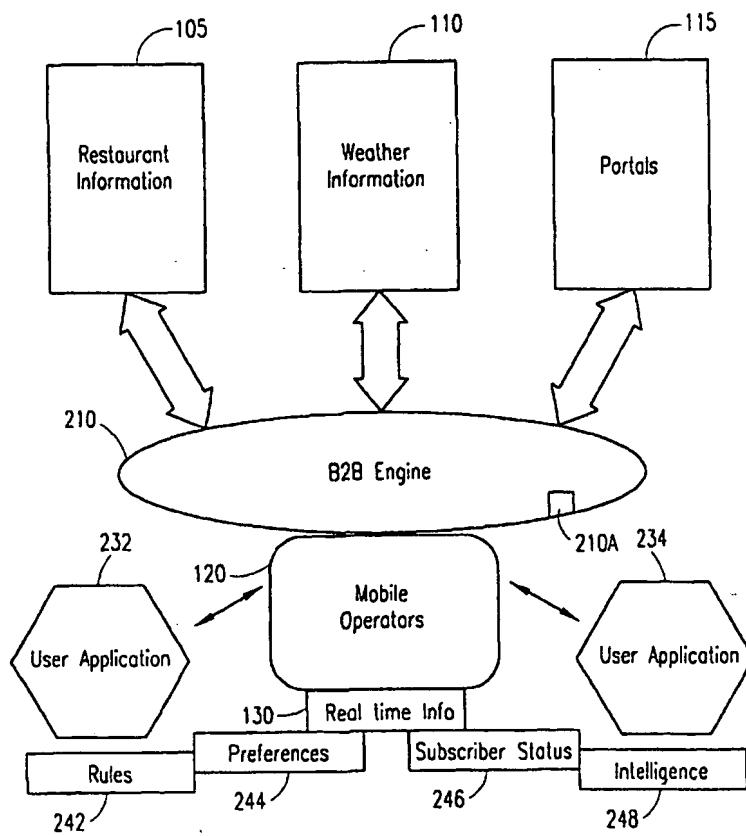
- (51) International Patent Classification⁷: **H04L 29/00**, H04Q 7/22
- (21) International Application Number: **PCT/US01/29623**
- (22) International Filing Date:
21 September 2001 (21.09.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/235,142 22 September 2000 (22.09.2000) US
09/755,948 5 January 2001 (05.01.2001) US
- (71) Applicant: **ERICSSON INC.** [US/US]; 6300 Legacy, MS EVW 2-C-2, Plano, TX 75024 (US).
- (72) Inventors: **BHATIA, Ranjit**; 2444 Ravenhurst Drive, Plano, TX 75025 (US). **KAVI, Shashi**; 5120 Sunningdale Court, Plano, TX 75093 (US). **HUSSAIN, Tahir**; 3528 Misty Meadow Drive, Dallas, TX 75287 (US). **BETRABET, Arvind**; 304 Shady Timbers Lane, Murphy, TX 75094 (US).
- (74) Agents: **HAN, John, C. et al.**; Ericsson Inc., 6300 Legacy, MS EVW 2-C-2, Plano, TX 75024 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

[Continued on next page]

(54) Title: A BUSINESS TO BUSINESS ENGINE AND SYSTEM FOR FACILITATING INFORMATION INTEREXCHANGE USING REALTIME DATA



WO 02/025893 A3



(57) Abstract: A system and method for facilitating information interexchange between a wireless telecommunications system having at least one telecommunications device therein and an information service provider. A Business-to-Business (B2B) engine is connected to the telecommunications system for receiving realtime information related to a telecommunications device within the telecommunications system. This realtime information is provided by the B2B engine to the information service provider, which consequently provides content data to the telecommunications device within the telecommunications system.



(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report*
- *with amended claims*

(88) **Date of publication of the international search report:**
27 June 2002

Declarations under Rule 4.17:

- *as to the identity of the inventor (Rule 4.17(i)) for all designations*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

Date of publication of the amended claims: 20 March 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

AMENDED CLAIMS

[received by the International Bureau on 10 July 2002 (10.07.2002);
original claims 1, 3-5, 15, 21-22, 26 and 32 amended; claims 2 and 19 cancelled;
new claim 37 added; remaining claims unchanged (8 pages)]

1. (Amended) A telecommunication system for facilitating information interexchange, said telecommunication system comprising:

5 a realtime network having at least one telecommunications device therein;

an Internet service provider associated with an Internet network, said Internet service provider employing non-realtime operations; and

10 a Business-to-business (B2B) engine interfacing said realtime network and said Internet service provider, said B2B engine exchanging information therebetween and providing realtime information related to said at least one telecommunications device to said Internet service provider

15 automatically upon receipt thereof from said realtime network based on pre-configured rules associated with said at least one telecommunications device, said B2B engine further providing a plurality of data from said Internet network to said at least one telecommunications device,

20 said plurality of data being prepared by said Internet service provider in accordance with said realtime information.

25 2. (Canceled)

3. (Amended) The system according to claim 1, wherein said B2B engine further comprises filtering means for filtering said realtime information, said filtered realtime information being provided to said Internet service provider.

30 4. (Amended) The system according to claim 1, wherein said at least one telecommunications device is

registered to receive data from said Internet service provider.

5. (Amended) The system according to claim 1,
wherein said B2B engine further comprises collecting means
for collecting said realtime information related to said at
least one telecommunications device within said realtime
network.

10 6. The system according to claim 1, wherein said B2B
engine further comprises a polling means for polling at
least one network element in said realtime network.

15 7. The system according to claim 1, wherein said B2B
engine further comprises:

polling means for selectively polling said at
least one network element within said realtime network; and
requesting means for requesting said at least one
network element to report selected realtime information
20 related to said at least one telecommunications device.

8. The system according to claim 1, wherein said B2B
engine further comprises a receiving means for receiving
said realtime information from at least one network element
25 in said realtime network.

9. The system according to claim 8, wherein said
receiving means further comprises a filtering means for
filtering said received realtime information.

30 10. The system according to claim 1, wherein said B2B
engine further comprises a receiving means for receiving
said realtime information from said at least one

telecommunications device.

11. The system according to claim 1, wherein said Internet service provider comprises a portal that collects
5 content from the Internet network.

12. The system according to claim 1, wherein said at least one telecommunications device is selected from the group consisting of: a wireless mobile terminal, a personal
10 data assistant (PDA) and a wireless communications device.

13. The system according to claim 1, wherein said B2B engine further comprises a plurality of application modules, said plurality of application modules facilitating
15 the information interexchange between the realtime network and the Internet service provider.

14. The system according to claim 1, wherein said Internet service provider is within said B2B engine, said
20 Internet service provider containing content data, said content data being selectively provided to said at least one telecommunications device.

15. (Amended) A Business-to-business (B2B) system for
25 facilitating information interexchange between a wireless telecommunications system having at least one telecommunications device therein and an Internet portal, said B2B system comprising:

30 a Business-to-business (B2B) engine configured to maintain pre-configured rules associated with said at least one telecommunications device;

a first interface module for interfacing with said wireless telecommunications system to receive realtime

information related to said at least one telecommunications device and provide said realtime information to said B2B engine; and

5 a second interface module for connecting with
said Internet portal, providing said realtime information
from said B2B engine to said Internet portal and providing
a plurality of content data from said Internet portal to
said B2B engine, said B2B engine exchanging information
between said wireless telecommunications system and said
10 Internet portal via said first interface module and said
second interface module, respectively, said B2B engine
providing said realtime information from said wireless
telecommunication system to said Internet portal
automatically upon receipt thereof based on said pre-
15 configured rules, thereby enabling transference of said
plurality of content data from said Internet portal to said
at least one telecommunications device.

16. The system according to claim 15, wherein said at
20 least one telecommunications device is selected from the
group consisting of: a mobile station, a personal data
assistant (PDA) and a wireless communications device.

17. The system according to claim 15, wherein the B2B
25 engine further comprises a plurality of modules therein,
said plurality of modules facilitating the information
interexchange between said wireless telecommunications
system and said Internet portal.

30 18. The system according to claim 15, wherein said
first interface module uses a HyperText Transfer Protocol
(HTTP).

19. (Canceled).

20. The system according to claim 15, wherein said at least one telecommunications device is registered with said
5 Internet portal.

21. (Amended) The system according to claim 15, wherein said B2B engine further comprises polling means for polling at least one system element within said wireless
10 telecommunications system for said realtime information of said at least one telecommunications device therein.

22. (Amended) The system according to claim 15, wherein said B2B engine further comprises a receiving means
15 for receiving said realtime information reported from at least one system element within said wireless telecommunications system.

23. (Amended) The system according to claim 15,
20 wherein said B2B engine further comprises receiving means for receiving said realtime information reported from said at least one telecommunications device.

24. The system according to claim 15, further comprising at least one operator interface for facilitating operation of said B2B engine and at least one developer interface used for developing and updating said B2B engine.
25

25. The system according to claim 15, wherein said
30 Internet portal comprises a plurality of content providers for providing content to said at least one telecommunications device.

26. (Amended) A method for facilitating information interexchange between a wireless telecommunications system having at least one telecommunications device therein and an Internet portal, said method comprising the steps of:

5 receiving realtime information related to said at least one telecommunications device at a first interface module associated with a Business-to-Business (B2B) engine in communication with said wireless telecommunications system; and

10 providing said realtime information automatically upon receipt thereof to said Internet portal by a second interface module associated with said B2B engine based on pre-configured rules associated with said at least one telecommunications device, thereby enabling transference of
15 a plurality of content data prepared in accordance with said realtime information from said Internet portal to said at least one telecommunications device.

27. The method according to claim 26, further
20 comprising, prior to said providing step, the step of:

filtering, by said B2B engine, said realtime information, said B2B engine providing said filtered realtime information to said Internet portal.

25 28. The method according to claim 26, wherein said plurality of content data is transferred from said Internet portal to said at least one telecommunications device according to a feature of said realtime information.

30 29. The method according to claim 28, wherein said feature of said realtime information is location-based.

30. The method according to claim 26, further comprising the step of:

monitoring said realtime information, by at least one system element within said wireless telecommunications
5 system.

31. The method according to claim 26, further comprising the step of:

polling at least one system element in said
10 wireless telecommunications system.

32. (Amended) The method according to claim 26, further comprising the steps of:

selectively polling at least one system element
15 associated with said wireless telecommunications system;
and

requesting said at least one system element to report selected ones of said realtime information to said B2B engine.

20

33. The method according to claim 26, wherein said at least one telecommunications device is selected from the group consisting of: a mobile station, a personal data assistant (PDA) and a wireless communications device.

25

34. The method according to claim 26, wherein said realtime information comprises location information associated with said at least one telecommunications device.

30

35. The method according to claim 26, wherein said realtime information is selected from the group consisting

of: subscriber status information, subscriber preferences information and subscriber rules information.

36. The method according to claim 26, further comprising, prior to said receiving step, the step of:

registering said at least one telecommunications device to receive said plurality of content data from said Internet portal, said receiving step comprising receiving said realtime information associated with the registered at least one telecommunications device.

37. (New) The method according to claim 26, further comprising the steps of:

establishing said pre-configured rules by a subscriber associated with said communications device with said Internet portal; and

storing said pre-configured rules within said B2B engine.